



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,071	09/22/2000	Kouji Fujiwara	49940(868)	1421
21874	7590	10/08/2004	EXAMINER	
EDWARDS & ANGELL, LLP			NGUYEN, HAU H	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	

2676  
DATE MAILED: 10/08/2004

21

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/668,071

Applicant(s)

FUJIWARA ET AL.

Examiner

Hau H Nguyen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5 and 7 is/are allowed.
- 6) ☒ Claim(s) 1,6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 19.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2676

***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 6, and 8-13 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 6, 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al. (U.S. Patent No. 6,094,216).

Referring to claim 1, Taniguchi et al. teach a stereoscopic image display method comprising the steps of: dividing each of a plurality of parallax images supplied from a parallax image source having parallax image information into stripe pixels; displaying, on a display, a single stripe image by arranging and synthesizing some of the stripe pixels in a predetermined order; displaying a slit pattern consisting of a light-transmission portion and a light-shielding

Art Unit: 2676

portion arranged at a predetermined pitch on a spatial light modulation element (a shield member) arranged at a predetermined position on the front or rear side of the display; inputting light transmitted through the stripe pixels, corresponding to the right and left eyes of an observer, of the stripe image to the right and left eyes of the observer via the spatial light modulation element; and synchronously displaying the stripe pattern and the slit pattern in units of pixels or scan lines on corresponding scan lines of the display and the spatial light modulation element (a driven mechanism). The slit pattern in which the positions of the light-transmission portion and the light-shielding portion replace each other is displayed on the spatial light modulation element (col. 4, lines 24-67). Fig. 6 shows the image device having a backlight 21, and the displayed image (for example, L image or R image) is shut off for a constant period (col. 16, lines 15-30).

In regard to claim 8, with reference again to Fig. 6, Taniguchi et al. teach the spatial light modulation element 2 must have a high contrast and must realize a high-speed driving operation since it separates the right- and left-eye parallax images by means of the parallax barrier pattern formed thereon. When the display 1 and the spatial light modulation element 2 comprise liquid crystal elements (liquid crystal optical shutter), they preferably use the same type of liquid crystal elements since it is easy to assure synchronization due to the same display speed (response speed) and identical driving circuits can be used (col. 14, lines 63-67, and col. 15, lines 1-7).

Referring to claim 9, Taniguchi et al. teach the spatial light modulation element 2 (the shield member) having a high-speed frame rate of 60 Hz to 120 Hz. As cited above, the shield member is capable of shutting off an image, therefore, it is inherent that the shield member is operable to shut off the image between frames.

In regard to claims 10 and 11, as cited above, Taniguchi et al. teach the spatial light modulation element (shield member), which is a liquid crystal optical shutter, having a light-transmission portion and light-shielding portion.

Referring to claim 12, as shown in Fig. 5, Taniguchi et al. teach the display 1 for displaying the stripe image 11 is arranged so that a TN liquid crystal cell 23 between two polarizing plates 22 and 24 is illuminated with light emitted by a backlight 21 having a reflection plate and a light guide plate (col. 15, lines 51-61). As cited above, Taniguchi et al. teach the spatial light modulation element (shield member) arranged at a predetermined position on the front or rear side of the display. Therefore, it is inherent that the display device should also be a reflection type display device.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (U.S. Patent No. 6,094,216) in view of Faris (U.S. Patent No. 5,828,427).

Referring to claim 31, as applied to claim 9, Taniguchi et al. teach all the limitations of claim 9, except that the liquid crystal display device is a projection device for magnifying and projecting light.

Art Unit: 2676

However, liquid crystal display device used in projection device is common in the art as described in U.S. Patent No. 5,828,427 to Faris. Faris teaches a flat panel display panel having direct and projection viewing modes of operation, and an electro-optical backlighting panel having a light emission state in which light is emitted from the electro-optical panel during the direct viewing mode of operation, and a light transmission state in which externally generated light is permitted to pass through the electro-optical panel without substantial scattering during the projection viewing mode of operation (col. 3, lines 9-17).

Therefore, it would have been obvious to one skilled in the art to utilize the LCD device as taught by Faris in combination with the display device as taught by Taniguchi et al. in order to project images on large viewing surfaces (col. 6, lines 22-25).

#### ***Allowable Subject Matter***

6. Claims 2-5, and 7 are allowed.

#### ***Reasons for Allowance***

7. The following is an examiner's statement of reasons for allowable subject matter:

The prior art taken singly or in combination does not teach or suggest, an image display device, among other things, comprising a shield member, which is an endless belt.

The closest prior art, reference Taniguchi et al. (U.S. Patent No. 6,094,216) teaches a shield member, comprising a light-transmission portion and a light-shielding portion.

However, the shield member as taught by reference Taniguchi et al. is not an endless belt.

#### ***Conclusion***

Art Unit: 2676

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



H. Nguyen

MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600